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<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Appl. ation Number	09/776,597
	Filing Date	2-5-01
	First Named Inventor	Wilson
	Group Art Unit	2837
	Examiner Name	H. Dhin Yong
Total Number of Pages in This Submission	Attorney Docket Number	

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Assignment Papers (for an Application)	<input type="checkbox"/> After Allowance Communication to Group
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<input type="checkbox"/> After Final	<input type="checkbox"/> Petition	<input type="checkbox"/> Proprietary Information
<input type="checkbox"/> Affidavits/declaration(s)	<input type="checkbox"/> Petition to Convert to a Provisional Application	<input type="checkbox"/> Status Letter
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# FEE TRANSMITTAL for FY 2003

Effective 01/01/2003. Patent fees are subject to annual revision.

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) **160**

## Complete if Known

Application Number **09/776,597**

Filing Date **2-5-01**

First Named Inventor **Wilson**

Examiner Name **H. Dhin Kung**

Art Unit **2837**

Attorney Docket No.

## METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number **50-1954**  
Deposit Account Name **LaMorte & Associates**

The Commissioner is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Credit any overpayments

☐ Charge any additional fee(s) during the pendency of this application

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

## FEE CALCULATION

### 1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	750	2001	375	Utility filing fee	
1002	330	2002	165	Design filing fee	
1003	520	2003	260	Plant filing fee	
1004	750	2004	375	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$)

### 2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

		Extra Claims	Fee from below	Fee Paid
Total Claims		-20** =	X	
Independent Claims		-3** =	X	
Multiple Dependent				

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	84	2201	42	Independent claims in excess of 3
1203	280	2203	140	Multiple dependent claim, if not paid
1204	84	2204	42	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)

\*\*or number previously paid, if greater; For Reissues, see above

## FEE CALCULATION (continued)

### 3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	410	2252	205	Extension for reply within second month	
1253	930	2253	465	Extension for reply within third month	
1254	1,450	2254	725	Extension for reply within fourth month	
1255	1,970	2255	985	Extension for reply within fifth month	
1401	320	2401	160	Notice of Appeal	
1402	320	2402	160	Filing a brief in support of an appeal	160
1403	280	2403	140	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,300	2453	650	Petition to revive - unintentional	
1501	1,300	2501	650	Utility issue fee (or reissue)	
1502	470	2502	235	Design issue fee	
1503	630	2503	315	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	750	2809	375	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	750	2810	375	For each additional invention to be examined (37 CFR 1.129(b))	
1801	750	2801	375	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) **160**

## SUBMITTED BY

Name (Print/Type)

**ERIC LaMorte**

Registration No. (Attorney/Agent)

**34653**

(Complete if applicable)

Telephone **215 321-6772**

Signature

*[Signature]*

Date

**1-22-03**

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2402-160<sup>00</sup>

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
**Wilson**

Serial No.: **09/776,597**

Filed: **February 05, 2001**

Examiner: **H. Dhih Yung**

Group Art Unit: **2837**

Date: **January 22, 2003**

*of Appeal  
Brief  
2/20/03*

**For: PROTECTIVE SLEEVE FOR AN  
INSTRUMENT STRING AND ITS METHOD  
OF APPLICATION TO AN INSTRUMENT**

Commissioner of Patents and Trademarks  
Washington, DC 20231

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**APPEAL BRIEF OF APPELLANT**

Sir:

The Applicant has filed a timely Notice of Appeal from the action of the Examiner dated August 22, 2002, finally rejecting Claims 1 - 17. The Applicant herein timely files this Brief in accordance with 37 C.F.R. 1.192(a).

**I. PARTY IN INTEREST [37 CFR §1.192(c)(1)]**

The subject application is not assigned. As such, the Party in Interest is the Applicant.

**II. RELATED APPEALS AND INTERFERENCE [37 CFR §1.192(c)(2)]**

No other related application is currently subject to an Appeal or Interference.

### **III. STATUS OF CLAIMS [37 CFR §1.192(c)(3)]**

Claims 1- 17 are pending in this application.

Claims 1 - 17 stand as finally rejected by the Examiner.

### **IV. STATUS OF THE AMENDMENTS [37 CFR §1.192(c)(4)]**

The amendment filed by the Applicant on July 30, 2002 was entered by the Examiner.

No other amendments were filed.

### **V. SUMMARY OF THE INVENTION [37 CFR §1.192(c)(5)]**

The subject application has three pending independent claims, which are Claim 1, Claim 6 and Claim 12.

Claim 1 is an independent claim that sets forth a device for reducing wear of guitar strings in an electric guitar, wherein the electric guitar is of the type that is strung with guitar strings that terminate with end caps. (*See preamble to Claim 1*) Such electric guitars have a body that defines a plurality of cylindrical string apertures that are sized to enable the guitar strings, but not the end caps, to pass therethrough. (*See Fig. 2 and Specification, page 8, line 22 – page 9 line 3*)

The present invention device comprises a tubular sleeve (30, Fig. 3) that defines a central conduit (36, Fig. 3). The tubular sleeve (30, Fig. 3) has a neck section (34, Fig. 3) with an external diameter that enables the neck section (34, Fig. 3) to pass into any of the cylindrical string apertures (25, Fig. 3) in the guitar. The tubular sleeve (30, Fig. 3) also has a head section (32, Fig. 3) that is sized to be too large to pass through any of the cylindrical string apertures (25, Fig. 3) (*See description of tubular sleeve on page 10, lines 7-22*).

The central conduit defined by the tubular sleeve (30, Fig. 3) is sized to let the guitar string (24, Fig. 3) pass therethrough. (*See specification, page 11, line 1*) The tubular sleeve

(30, Fig. 1) is placed in one of the cylindrical string apertures (25, Fig. 3) and the guitar string (24, Fig. 3) is strung through the central conduit (36, Fig. 3) of the tubular sleeve. In this manner, the guitar string (24, Fig. 3) contacts only the tubular insert (30, Fig. 3) as the guitar string passes out of the cylindrical string aperture (25, Fig. 3). (See Specification, page 12, lines 8-12)

Claim 6 sets forth a method of reducing wear and stress on guitar strings in a guitar of the type having a body with a front surface and a back surface, wherein a plurality of string apertures extend through the guitar between the front surface and the back surface. (See preamble of Claim 6 and description of guitar on page 8, lines 10-21) The guitar is strung by passing guitar strings with end caps through the string apertures. (See Specification page 8, line 22 – page 9, line 12)

The claimed method includes placing tubular sleeves (30, Fig. 3) within each of the string apertures (25, Fig. 3) in the electric guitar. The guitar strings (24, Fig. 3) are advanced through the tubular sleeves (30, Fig. 3) while stringing the guitar, wherein each of the guitar strings (24, Fig. 3) is biased against a tubular sleeve (30, Fig. 3) when the guitar is strung. (See Specification, page 12 lines 8-15)

Claim 12 is an independent claim that sets forth a guitar. (See preamble of Claim 12) The guitar (10, Fig. 1) has a body (12, Fig. 1) with both a front surface and a rear surface. (See Specification, page 8, lines 10 – 21) The body (12, Fig. 1) defines a plurality of string apertures (25, Fig. 3) that extend unobstructed between the front surface and the back surface. A neck (14, Fig. 1) extends from the body (12, Fig. 1). Tuning mechanisms (16, Fig. 1) are supported by the neck (14, Fig. 1) of the guitar (10, Fig. 1). Replaceable tubular sleeves (30, Fig. 3) line the string apertures (25, Fig. 3) in the guitar. The strings (24, Fig. 3) of the guitar extend through the tubular sleeves (30, Fig. 3) in the string apertures (24, Fig. 3). The tuning mechanisms (16, Fig. 1) pull the strings (24, Fig. 3) taut and cause the strings to bend about

and contact the tubular sleeves (30, Fig. 3) that line the string apertures (25, Fig. 3). (See Specification, page 12 lines 8-15)

**VI. ISSUES. [37 CFR §1.192(c)(6)]**

The issues presented on review are as follows:

ISSUE 1 - Whether the Examiner erred in finally rejecting Claims 1, 2 and 6-8 under 35 USC 103(a) as being unpatentable over German Reference No. DE3924736 to Liebchen in view of U.S. Patent No. 5,477,764 to Carrico.

ISSUE 2 - Whether the Examiner erred in finally rejecting Claim 12 under 35 USC 103(a) as being unpatentable over Fig. 2 of the application in further view of German Reference No. DE3924736 to Liebchen.

ISSUE 3 - Whether the Examiner erred in rejecting Claims 3-4 and 9-10 under 35 USC 103(a) as being unpatentable over German Reference No. DE3924736 to Liebchen in view of U.S. Patent No. 5,477,764 to Carrico and U.S. Patent No. 4,535,670 to Borisoff.

ISSUE 4 - Whether the Examiner erred in rejecting Claims 5 and 11 under 35 USC 103(a) as being unpatentable over German Reference No. DE3924736 to Liebchen in view of U.S. Patent No. 5,477,764 to Carrico and U.S. Patent No. 5,227,571 to Cipriani.

ISSUE 5 - Whether the Examiner erred in finally rejecting Claims 15 and 16 under 35 USC 103(a) as being unpatentable over Fig. 2 of the application in further view of German Reference No. DE3924736 to Liebchen in further view of U.S. Patent No. 4,535,670 to

Borisoff.

ISSUE 6 - Whether the Examiner erred in finally rejecting Claims 17 under 35 USC 103(a) as being unpatentable over Fig. 2 of the application in further view of German Reference No. DE3924736 to Liebchen in further view of U.S. Patent No. 5,227,571 to Cipriani.

ISSUE 7 - Whether the Examiner erred in finally rejecting Claims 1-17 because the Examiner has no proper motivation for the combinations made, thereby producing a wrongful hindsight reconstruction.

**VII. GROUPING OF CLAIMS. [37 CFR §1.192(c)(7)]**

The present application contains three independent claims, which are Claims 1, 6 and 12. Claim 1 sets forth a device for preventing wear on a guitar string. Claim 6 sets forth a method of reducing wear on a guitar string, and Claim 12 sets forth a guitar. Since the three independent claims claim different applications of the present invention, the three independent claims will be argued separately. Accordingly, it is believed that the three independent claims should be considered separately and should not stand and fall together.

**VIII. ARGUMENTS. [37 CFR §1.192(c)(7)]**

**ISSUE 1** - Whether the Examiner erred in finally rejecting Claims 1, 2 and 6-8 under 35 USC 103(a) as being unpatentable over German Reference No. DE3924736 to Liebchen in view of U.S. Patent No. 5,477,764 to Carrico.

The rejected claims contain two independent claims. These claims are Claim 1 and

Claim 6. Both of these claims are fully distinguishable over the combined references, as is explained below.

#### Claim 1

Claim 1 sets forth a device for reducing wear in guitar strings in an electric guitar of the type that is strung with guitar strings that terminate with end caps. Such electric guitars have a body that defines a plurality of cylindrical string apertures that are sized to enable the guitar strings, but not the end caps, to pass therethrough.

The present invention device comprises a tubular sleeve that defines a central conduit. The tubular sleeve has a neck section with an external diameter that enables said neck section to pass into any of the cylindrical string apertures in the guitar. The tubular sleeve also has a head section that is sized to be too large to pass through any of the cylindrical string apertures.

The central conduit defined by the tubular sleeve is sized to let the guitar string pass therethrough. The tubular sleeve is placed in one of the cylindrical string apertures and the guitar string is strung through the central conduit of the tubular sleeve. In this manner, the guitar string contacts only the tubular insert as the guitar string passes out of the cylindrical string aperture.

**The Liebchen reference discloses** a large block that is press fit into a slot that is carved in the face of a guitar. All of the guitar strings are attached to the block that is press fit into the guitar. As such, the Liebchen reference can only be used in a specialized guitar that can receive the large press fit block.

As applied to the wording of Claim 1, the Liebchen reference **does not disclose** any device that can be used on an electric guitar having traditional cylindrical string apertures. The Liebchen reference **does not disclose** the use of any tubular sleeve that passes into a traditional cylindrical string aperture of a guitar. Accordingly, the Liebchen reference in no manner



discloses the matter of Claim 1 that specifically claims the structure of a tubular sleeve.

The Examiner cites the Carrico patent to address the many deficiencies of the Liebchen reference. The Carrico patent discloses a string anchoring system that functions very differently from the present invention. In the Carrico system, bores are drilled into the body of a guitar. A first cylindrical element (20) is threaded into the bore. The guitar strings is then threaded through a second cylindrical element (10). The second cylindrical element (10) is then inserted into the first cylindrical element (20) where it is held in place by either friction or a mechanical locking mechanism. Accordingly, the system disclosed by the Carrico patent cannot be retroactively added to an existing guitar unless a person wants to damage the guitar by threading the second cylindrical elements (20) into the wood of the guitar.

The present invention is does not damage the structure of the guitar and can be added to any guitar that is strung through the body of the guitar. The Carrico patent **does not disclose** a guitar body having string apertures that extend between the face surface of the body and the back surface of the body. The Carrico patent **does not disclose** the use of replaceable tubular sleeves that line the string apertures as they extend between the front surface and back surface of the guitar body. Accordingly, **in combination** neither the Liebchen reference nor the Carrico patent disclose a tubular sleeve having a neck section that enables the neck section to pass into any of the cylindrical string apertures of a guitar. The Liebchen reference does not disclose any tubular sleeve and the Carrico patent only discloses a second cylindrical section (20) that must be threaded into the material of the guitar.

Furthermore, neither the Liebchen reference nor the Carrico patent disclose a tubular sleeve that is placed in one of the cylindrical string apertures of a guitar, where the guitar is strung from the rear surface of the guitar through the central conduit of the tubular sleeve.

Since the matter contained in Claim 1 is clearly not disclosed in either the Liebchen reference or the Carrico patent, it is clear that the combination does not render obvious the

matter of Claim 1 and its independent claims. The Examiner's rejection should therefore be withdrawn as being unsupported by the cited art.

#### Claim 6

Claim 6 sets forth a method of reducing wear and stress on guitar strings in a guitar of the type having a body with a front surface and a back surface, wherein a plurality of string apertures extend through the guitar between the front surface and the back surface. The guitar is strung by passing guitar strings with end caps through the string apertures.

The claimed method includes placing tubular sleeves within each of the string apertures in the electric guitar. The guitar strings are advanced through the tubular sleeves while stringing the guitar, wherein each of the guitar strings is biased against a tubular sleeve when the guitar is strung.

Neither the Liebchen reference nor the Carrico patent discloses a method of stringing the type of guitar mentioned in Claim 6. Furthermore, neither reference discloses the step of advancing strings through the claimed tubular sleeves while the guitar is being strung. Rather in both the Liebchen reference and the Carrico patent, the devices disclosed serve as the anchor to the guitar strings, they are not structures through which the guitar strings pass as the guitar is being normally strung.

Since the matter contained in Claim 6 is clearly not disclosed in either the Liebchen reference or the Carrico patent, it is clear that the combination does not render obvious the matter of Claim 6 and its independent claims. The Examiner's rejection should therefore be withdrawn as being unsupported by the cited art.

**ISSUE 2 -** Whether the Examiner erred in finally rejecting Claims 12 under 35 USC 103(a) as being unpatentable over Fig. 2 of the application in further

view of German Reference No. DE3924736 to Liebchen.

Claim 12 is an independent claim that sets forth a guitar. The guitar has a body with both a front surface and a rear surface. The body defines a plurality of string apertures that extend unobstructed between the front surface and said back surface. A neck extends from the body. Tuning mechanisms are supported by the neck of the guitar. Replaceable tubular sleeves line the string apertures in the guitar. The strings of the guitar extend through the tubular sleeves in said string apertures. The tuning mechanisms pull the strings taut and cause the strings to bend about and contact the tubular sleeves that line the string apertures.

The prior art disclosed in Fig. 2 of the present applications shows a traditional electric guitar stringing configuration. The prior art does not disclose the use of tubular sleeves to relieve stress in the guitar strings as they are tightened and biased against the structure of the guitar.

**The Liebchen reference discloses** a large block that is press fit into a slot that is carved in the face of a guitar. All of the guitar strings are attached to the block that is press fit into the guitar. As such, the Liebchen reference can only be used in a specialized guitar that can receive the large press fit block.

As applied to the wording of Claim 12, the Liebchen reference **does not disclose** any device that can be used on an electric guitar having traditional cylindrical string apertures. The Liebchen reference **does not disclose** the use of any tubular sleeve that line cylindrical string aperture of a guitar. As such, both the Liebchen patent and the prior art of Fig. 2 fail to disclose any tubular sleeves that line the string apertures of a guitar.

Since the matter contained in Claim 12 is clearly not disclosed in either the Liebchen reference or the matter of Fig. 2, it is clear that the combination does not render obvious the matter of Claim 12 and its independent claims. The Examiner's rejection should therefore be

withdrawn as being unsupported by the cited art.

**ISSUE 3 -** Whether the Examiner erred in rejecting Claims 3-4 and 9-10 under 35 USC 103(a) as being unpatentable over German Reference No. DE3924736 to Liebchen in view of U.S. Patent No. 5,477,764 to Carrico and U.S. Patent No. 4,535,670 to Borisoff.

Claims 3 and 4 depend from independent Claim 1. Claims 9 and 10 depend from independent Claim 6.

Claims 3, 4, 9 and 10 specify the materials that can be used to form the tubular elements of the present invention.

Claim 1 and Claim 6 are distinguishable over the combined Liebchen and Carrico patents for the reasons previously presented. The addition of the Borisoff patent does not address the deficiencies of the Liebchen and Carrico patents as applied to the matter of Claim 1 or Claim 6.

The Borisoff patent discloses a string bender (68) that contacts a sleeve (64) on a guitar string. The Borisoff patent does not disclose or suggest the use of any tubular sleeve that passes into a traditional cylindrical string aperture of a guitar sleeve to prevent stresses in the guitar string as the guitar string bends toward the neck of the guitar. Since this matter is also not disclosed in the Liebchen and Carrico patents, it is clear that the combination of Liebchen, Carrico and Borisoff fails to disclose the matter of Claim 1 and Claim 6. Claims 2, 4, 9 and 10 are therefore believed to be allowable since they depend from and further define an allowable base claim.

**ISSUE 4 -** Whether the Examiner erred in rejecting Claims 5 and 11 under 35 USC 103(a) as being unpatentable over German Reference No. DE3924736 to Liebchen in view of U.S. Patent No. 5,477,764 to Carrico and U.S. Patent No. 5,227,571 to Cipriani

Claim 5 depends from independent Claim 1. Claim 11 depends from independent Claim 6.

Claims 5 and 11 specify the materials that can be used to form the tubular elements of the present invention.

Claim 1 and Claim 6 are distinguishable over the combined Liebchen and Carrico patents for the reasons previously presented. The addition of the Cipriani patent does not address the deficiencies of the Liebchen and Carrico patents as applied to the matter of Claim 1 or Claim 6.

The Cipriani patent discloses a guitar saddle that is made from aluminum. The Cipriani patent does not disclose or suggest the use of any tubular sleeve that passes into a traditional cylindrical string aperture of a guitar sleeve to prevent stresses in the guitar string as the guitar string bends toward the neck of the guitar. Since this matter is also not disclosed in the Liebchen and Carrico patents, it is clear that the combination of Liebchen, Carrico and Cipriani fails to disclose the matter of Claim 1 and Claim 6. Claims 5 and 11 are therefore believed to be allowable since they depend from and further define an allowable base claim.

**ISSUE 5 -** Whether the Examiner erred in finally rejecting Claims 15 and 16 under 35 USC 103(a) as being unpatentable over Fig. 2 of the application in further view of German Reference No. DE3924736 to Liebchen in further view of U.S. Patent No. 4,535,670 to Borisoff.

Claims 15 and 16 depend from independent Claim 12.

Claims 15 and 16 specify the materials that can be used to form the tubular elements of the present invention.

Claim 12 is distinguishable over the combination of the admitted prior art and the Liebchen patent for the reasons previously presented. The addition of the Borisoff patent does not address the deficiencies of the combination as applied to the matter of Claim 12.

The Borisoff patent discloses a string bender (68) that contacts a sleeve (64) on a guitar string. The Borisoff patent does not disclose or suggest the use of any tubular sleeve that passes into a traditional cylindrical string aperture of a guitar sleeve to prevent stresses in the guitar string as the guitar string bends toward the neck of the guitar. Since this matter is also not disclosed in the admitted prior art or the Liebchen patent, it is clear that the combination of the admitted prior art, Liebchen and Borisoff fails to disclose the matter of Claim 12. Claim 12 is therefore believed to be allowable since they depend from and further define an allowable base claim.

**ISSUE 6** - Whether the Examiner erred in finally rejecting Claim 17 under 35 USC 103(a) as being unpatentable over Fig. 2 of the application in further view of German Reference No. DE3924736 to Liebchen in further view of U.S. Patent No. 5,227,571 to Cipriani

Claim 17 depends from independent Claim 12.

Claim 17 specifies the materials that can be used to form the tubular elements of the present invention.

Claim 12 is distinguishable over the combination of the admitted prior art and the Liebchen patent for the reasons previously presented. The addition of the Cipriani patent does

not address the deficiencies of the combination as applied to the matter of Claim 12.

The Cipriani patent discloses a guitar saddle that is made from aluminum. The Cipriani patent does not disclose or suggest the use of any tubular sleeve that passes into a traditional cylindrical string aperture of a guitar sleeve to prevent stresses in the guitar string as the guitar string bends toward the neck of the guitar. Since this matter is also not disclosed in the admitted prior art or the Liebchen patents, it is clear that the combination of the admitted prior art, Liebchen and Cipriani fails to disclose the matter of Claim 12. Claim 12 is therefore believed to be allowable since it depends from and further defines an allowable base claim.

**ISSUE 7 -** Whether the Examiner erred in finally rejecting Claims 1 - 17 under 35 U.S.C. §103 because the Examiner has no proper motivation for the combinations made, thereby producing a wrongful hindsight reconstruction.

The Examiner's rejection based upon the cited references requires a selective combination of various elements before the references can be applied to the pending claims. The law is clear. When prior art references require selective combination to render the claims of an application obvious, there must be some reason for the combination other than hindsight gleaned from the invention itself. See *Interconnect Planning Corp. v. Feil* 774 F.2d 1138, 227 USPQ 543 (Fed Cir 1985), and *Ashland Oil, Inc.* 776 F.2d 281, 227 USPQ 657 (Fed Cir 1985). Something in the prior art as a whole must suggest the desirability and thus the obviousness of making the combination. See *Lindermann Maschinenfabrik GmbH v. American Hoist and Derrick Co.* 730 F.2d 1452, 221 USPQ 481 (Fed Cir. 1984), and *Uniroyal Inc. v.*

*Rudkin-Wiley Corp. 5 USPQ 2nd 1434 (1988).*

As the court stated in *Uniroyal, 837 F.2d at 1051, 5 USPQ2d at 1438*, "it is impermissible to use the claims as a frame and the prior art references as a mosaic to piece together a facsimile of the claimed invention." In regard to the matter set forth in Claims 1, Claim 6 and Claim 12, the prior art cited simply does not disclose any tubular element that fits into a string conduit of an electric guitar and relieves stressing in a guitar string that passes through the tubular element. Since nothing in the cited art suggests what was claimed, the Examiner's combination is without motivation and is wrongful.

### CONCLUSION

The Applicant's brief is believed to be in full compliance with 37 C.F.R. §1. 192(c) et seq. The Examiner's 35 U.S.C. §103 rejections are not supported by the cited references. The Board is therefore requested to cause the Examiner to remove the rejection and allow the remaining pending claims.

Respectfully Submitted,



Eric A. LaMorte  
Reg. No. 34,653  
Attorney for Applicant

LaMorte & Associates, P.C.  
P.O. BOX 434  
Yardley, PA 19067



## **VII. APPENDIX.**

The pending claims stand as follows:

1. In an electric guitar of the type that is strung with guitar strings that terminate with end caps, wherein the guitar has a body that defines a plurality of cylindrical string apertures that are sized to enable the guitar strings, but not the end caps, to pass therethrough, a device for preventing wear on each guitar string as it passes into one of the cylindrical string, said device, comprising:

a tubular sleeve that defines a central conduit, said tubular sleeve including:

a neck section with an external diameter that enables said neck section to pass into any of the cylindrical string apertures, and

a head section that is sized to be too large to pass through the string aperture,

wherein said central conduit is sized to enable a guitar string to pass therethrough;

whereby said tubular sleeve is placed in one of said cylindrical string apertures, and the guitar string is strung through said central conduit of said tubular sleeve.

2. The device according to Claim 1, wherein said central conduit expands within said head section, thereby creating a curved interior surface.

3. The device according to Claim 1, wherein said tubular sleeve is comprised of a synthetic material.

4. The device according to Claim 3, wherein said synthetic material is selected

from a group consisting of Teflon, Kevlar and Surlyn.

5. The device according to Claim 1, wherein said tubular sleeve is comprised of a soft metal selected from a group consisting of brass, bronze, tin alloys, aluminum, and aluminum alloys.

6. In a guitar of the type having a body with a front surface and a back surface, wherein a plurality of string apertures extend through the guitar between the front surface and the back surface, wherein the guitar is strung by passing guitar strings with end caps through the string apertures, a method of reducing wear and stress on guitar strings as they pass through the string apertures, said method comprising the steps of:

placing tubular sleeves within each of the string apertures in the electric guitar;  
advancing the guitar strings through the tubular sleeves while stringing the guitar, wherein each of the guitar strings is biased against a tubular sleeve when the guitar is strung.

7. The method according to Claim 6, wherein each tubular sleeve has a neck section that fits within a string aperture of the electric guitar, and a head section that is too large to pass through the string aperture.

8. The method according to Claim 7, wherein said tubular sleeve defines a conduit and said conduit expands within said head section, thereby creating a curved interior surface against which the guitar string bends when the guitar is strung.

9. The method according to Claim 6, wherein said tubular sleeve is comprised of a

synthetic material.

10. The method according to Claim 9, wherein said synthetic material is selected from a group consisting of Teflon, Kevlar and Surlyn.

11. The method according to Claim 6, wherein said tubular sleeve is comprised of a soft metal selected from a group consisting of brass, bronze, tin alloys, aluminum, and aluminum alloys.

12. A guitar, comprising:

- a body having a front surface and a rear surface, wherein said body defines a plurality of [defining] string apertures that extend unobstructed between said front surface and said back surface;
- a neck extending from said body;
- tuning mechanisms supported by said neck;
- replaceable tubular sleeves lining said string apertures;
- strings extending through said tubular sleeves in said string apertures to said tuning mechanisms, wherein said tuning mechanisms cause said strings to bend about and contact said tubular sleeves.

13. The guitar according to Claim 12, wherein each of said tubular sleeves has a neck section sized to fit within one of said string apertures and a head section that is sized to be too large to pass through that string aperture.

14. The guitar according to Claim 13, wherein each of said tubular sleeves defines a conduit through which one of the guitar strings pass, wherein each said conduit expands within said head section, thereby creating a curved interior surface against which the guitar string is biased by one of said tuning mechanisms.

15. The guitar according to Claim 12, wherein each of said tubular sleeves is comprised of a synthetic material.

16. The device according to Claim 12, wherein said synthetic material is selected from a group consisting of Teflon, Kevlar and Surlyn.

17. The device according to Claim 12, wherein each of said tubular sleeves is comprised of a material that is softer than that of said guitar strings.